

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

- B1
1. (currently amended) A battery ~~comprises~~ comprising:
a ~~positive electrode~~, a positive electrode;
a negative electrode and an electrolyte: wherein the negative electrode has having
a collector layer ~~consisting of~~ selected from the group consisting of a foil including a metal ;
~~which~~ wherein the metal is not copper and does not form an alloy with lithium, ~~or~~ and a copper
foil covering the metal; and
the an electrolyte ~~contains~~ including a polymer compound ~~synthesized by radical~~
~~polymerization~~ selected from the group consisting of radically-polymerized monofunctional
monomers, multifunctional monomers, and mixtures thereof.
 2. (currently amended)) A battery according to claim 1, wherein the metal is more
noble than copper ~~in~~ with respect ~~of~~ to oxidation-reduction potential.
 3. (original) A battery according to claim 1, wherein the metal is nickel or
chromium.
 4. (original) A battery according to claim 1, wherein the polymer compound is
synthesized by polymerization at 95°C or lower.
 5. (currently amended) A battery according to claim 1, wherein the negative
electrode ~~includes~~ further comprises a material capable of occluding and releasing lithium.
 6. (currently amended) A battery according to claim 5, wherein the ~~negative~~
~~electrode includes~~ the material is a carbonaceous material ~~as the material capable of occluding~~
~~and releasing lithium.~~

7. (currently amended) A battery according to claim 1, wherein the positive electrode ~~includes~~ comprises a lithium composite oxide.

8. (currently amended) A battery ~~comprises~~ comprising:
a positive electrode, a positive electrode;
a negative electrode ~~and an electrolyte: wherein the negative electrode has~~ having
a collector layer ~~consisting of~~ selected from the group consisting of a foil including a metal,
~~which wherein the metal~~ is not copper and does not form an alloy with lithium, ~~or~~ and a copper
foil covering the metal; ~~and~~
the an electrolyte ~~contains~~ including a polymer compound ~~synthesized by radical~~
~~polymerization: selected from the group consisting of radically-polymerized monofunctional~~
monomers, multifunctional monomers, and mixtures thereof; and
a separator.

9. (currently amended) A battery according to claim 8, wherein the metal is more noble than copper ~~in~~ with respect ~~of~~ to oxidation-reduction potential.

10. (original) A battery according to claim 8, wherein the metal is nickel or chromium.

11. (original) A battery according to claim 8, wherein the polymer compound is synthesized by polymerization at 95°C or lower.

12. (currently amended) A battery according to claim 8, wherein the negative electrode ~~includes~~ further comprises a material capable of occluding and releasing lithium.

13. (currently amended) A battery according to claim 12, wherein ~~the negative electrode includes~~ the material is a carbonaceous material ~~as the material capable of occluding and releasing lithium.~~

14. (currently amended) A battery according to claim 8, wherein the positive electrode ~~includes~~ comprises a lithium composite oxide.

15. (currently amended) A battery ~~comprises~~ comprising:
a battery device including a positive electrode, a negative electrode, an electrolyte, and a package member enclosing the battery device;
wherein the negative electrode has a collector layer ~~consisting of~~ selected from the group consisting of a foil including a metal, which wherein the metal is not copper and does not form an alloy with lithium, ~~or~~ and a copper foil covering the metal; and
wherein the electrolyte contains includes a polymer compound synthesized by radical-polymerization. selected from the group consisting of radically-polymerized monofunctional monomers, multifunctional monomers, and mixtures thereof.
16. (currently amended) A battery according to claim 15, wherein the metal is more noble than copper ~~in with~~ with respect of to oxidation-reduction potential.
17. (original) A battery according to claim 15, wherein the metal is nickel or chromium.
18. (original) A battery according to claim 15, wherein the polymer compound is synthesized by polymerization at 95°C or lower.
19. (currently amended) A battery according to claim 15, wherein the negative electrode ~~includes~~ further comprises a material capable of occluding and releasing lithium.
20. (currently amended) A battery according to claim 19, wherein ~~the negative electrode includes the material is~~ a carbonaceous material ~~as the material capable of occluding and releasing lithium.~~
21. (currently amended) A battery according to claim 15, wherein the positive electrode ~~includes~~ comprises a lithium composite oxide.

22. (currently amended) A battery according to claim 15, wherein the package member ~~is made of~~ comprises a laminate film wherein a polymer compound film, a metal film, and a polymer compound film are laminated in ~~this~~ that order.

23. (new) A battery comprising:
a positive electrode;
a negative electrode; and
an electrolyte wherein said electrolyte includes a polymer compound selected from the group consisting of radically-polymerized monofunctional monomers, multifunctional monomers, and mixtures thereof.

24. (new) A battery according to claim 23, wherein the positive electrode comprises a collector layer and a mixture layer.

25. (new) A battery according to claim 24, wherein the collector layer comprises aluminum or aluminum foil.

26. (new) A battery according to claim 24, wherein the mixture layer comprises positive electrode materials selected from the group consisting of lithium composite oxides containing lithium, lithium composite sulfides, metal sulfides, oxides, and mixtures thereof.

27. (new) A battery according to claim 26, wherein the metal sulfides are selected from the group consisting of TiS_2 , MoS_2 , NbSe_2 and V_2O_5 .

28. (new) A battery according to claim 23, wherein the negative electrode comprises a collector layer and a mixture layer.

29. (new) A battery according to claim 28, wherein the collector layer comprises a foil including a metal wherein the metal is not copper and does not form an alloy with lithium.

30. (new) A battery according to Claim 28, wherein the collector layer comprises a copper foil covering a metal wherein the metal is not copper and does not form an alloy with lithium.

31. (new) A battery according to Claim 28, wherein the mixture layer comprises negative electrode materials selected from the group consisting of materials capable of occluding and releasing lithium, and materials capable of dissolving and depositing lithium.

32. (new) A battery according to Claim 31, wherein the materials capable of occluding and releasing lithium are carbonaceous materials.

33. (new) A battery according to Claim 32, wherein the carbonaceous materials are selected from the group consisting of non-graphitizable carbon, graphitizable carbon, graphite, pyrocarbons, cokes, grassy-carbons, calcinated organic polymer compounds, carbon fibers, activated carbon and mixtures thereof.

34. (new) A battery according to claim 31, wherein the materials capable of occluding and releasing lithium have the formula $D_sE_tLi_u$ wherein D comprises a metal element and semiconductor element capable of forming an alloy or compound with lithium, wherein E comprises a metal element and a semiconductor element wherein said elements are not lithium or D, and wherein $s > 0$, $t \geq 0$, and $u \geq 0$.

35. (new) A battery according to claim 34, wherein the elements comprising D are selected from the group consisting of carbon, silicon, germanium, tin, lead, alloys, compounds, and mixtures thereof.

36. (new) A battery according to claim 31, wherein the materials capable of occluding and releasing lithium are selected from the group consisting of metal oxides and polymer materials.

37. (new) A battery according to claim 36, wherein the metal oxide is tin oxide.

38. (new) A battery according to claim 36, wherein the polymer materials are selected from the group consisting of polyacetylene, polypyrrole, and mixtures thereof.

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39. (new) A battery according to claim 31, wherein the materials capable of dissolving and depositing lithium are selected from the group consisting of a lithium metal, a lithium alloy, and mixtures thereof.

40. (new) A battery according to claim 39, wherein the metal is selected from the group consisting of aluminum, tin, zinc, lead, silicon, gallium, indium, cobalt, titanium, cadmium, and mixtures thereof.

41. (new) A battery according to claim 39, wherein the alloy is selected from the group consisting of aluminum, tin, zinc, lead, silicon, gallium, indium, cobalt, titanium, cadmium, and mixtures thereof.

42. (new) A battery according to claim 23, wherein the monofunctional monomers are selected from the group consisting of esters, ethers, and fluorines.

43. (new) A battery according to claim 23, wherein the esters are selected from the group consisting of methacrylic acid ester, acrylic ester, dimethacrylate ester, trimethacrylic acid ester, diacrylic esters, and mixtures thereof.

44. (new) A battery according to claim 23, wherein the multifunctional monomers have more than two polymerized functional groups in a molecule.
